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12 UNITED STATES DISTRICT COURT  
13 NORTHERN DISTRICT OF CALIFORNIA  
14 SAN FRANCISCO DIVISION

15 ORACLE AMERICA, INC.,

16 Plaintiffs,

17 v.

18 GOOGLE INC.,

19 Defendant.  
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Case No. 3:10-cv-03561 WHA

**GOOGLE'S PROFFER RE: GNU AND  
THE CUSTOM AND PRACTICE  
REGARDING REIMPLEMENTATIONS  
OF JAVA APIS**

Dept. Courtroom 8, 19th Fl.  
Judge: Hon. William Alsup

## I. INTRODUCTION

In denying Oracle's motion to exclude evidence relating to Apache Harmony, this Court explained that evidence as to the custom and practice in the industry is relevant to Google's claim of fair use. ECF 1748 at 3 (citing *Wall Data Inc. v. L. A. Cty. Sheriff's Dep't*, 447 F.3d 769 (9th Cir. 2006) (holding that in balancing the fair use factors, a court should "bear in mind" that "fair use is appropriate where a 'reasonable copyright owner' would have consented to the use, i.e., where the 'custom or public policy' at the time would have defined the use as reasonable.")). The Court reserved ruling on evidence regarding GNU Classpath, ordering Google first to submit a written proffer about the custom and practice regarding reimplementing of APIs at the time that Google decided to rely on Apache Harmony.

Google's proffer addresses all of the Court's questions. Google notes, however, that evidence that the GNU Classpath project reimplemented the Java SE APIs is relevant independent of any reliance by Google on GNU Classpath, and of Sun's knowledge of GNU Classpath. Under *Wall Data*, the key question is whether custom or public policy at the time would have defined Google's use as reasonable. 447 F.3d at 778. The fact that GNU Classpath reimplemented the Java SE APIs in the open is evidence that the GNU Classpath developers believed that their actions were reasonable. Evidence that Google and Sun in particular were aware of these activities is further evidence of a custom and practice that treated this conduct as reasonable. Further, because GNU Classpath predates Apache Harmony, it evidences the existence of a custom and practice for an even longer period of time.

Google submits that the evidence establishes that both Sun/Oracle and Google knew that the custom in the industry was to permit independent reimplementing of APIs; both parties were aware that GNU Classpath did exactly that; and therefore, this evidence is relevant to whether Google's use of the SSO and declarations of the 37 APIs at issue was a fair use. In particular, the evidence shows:

- GNU Classpath was one of the first projects to reimplement Java SE APIs. After earlier alpha and beta releases under different names, Sun released Java, including the Java SE class libraries, in 1996. Two years later, GNU Classpath very publicly

began an independent implementation of the Java SE class libraries—and Sun did not complain;

- In fact, key employees at Sun worked with GNU Classpath to reimplement Java SE APIs;
- During the early stage of developing Android, Google actually used the GNU Classpath libraries, but ultimately decided that their implementation was not well suited for mobile devices;
- Apache Harmony and GNU Classpath are essentially “equivalent” in that both projects involved reimplementations of APIs, though under different open source licensing schemes;
- Many leading technology companies contributed to GNU Classpath and Apache Harmony and have released products based on reimplementations of Java APIs.

Google sets forth below the specific evidence that establishes these facts.<sup>1</sup> Google does not anticipate presenting all this evidence at trial, but includes it here to demonstrate the breadth of the record on the custom and practice of reimplementing the APIs.

## II. DETAILED PROFFER

### A. DID ANYONE AT GOOGLE, IN MAKING THE DECISION TO RELY ON HARMONY, ACTUALLY REFER TO ANY CUSTOM OR PRACTICE? IF SO, GIVE THE PARTICULARS.

The Court’s request assumes that at the time Google decided to use Apache Harmony, Google believed that the propriety of using the Java declarations/SSO was an open question. However, as demonstrated in detail below, Google did not believe that to be an open question; rather Google understood that the industry practice was to allow re-implementations of API generally, and Java APIs.

#### 1. Witnesses:

Name	Testimony
<b>Andy Rubin, Android co-founder</b>	<i>Expected Testimony:</i>

<sup>1</sup> The majority of the witness testimony and documents cited herein provide evidentiary support for several of the Court’s inquiries; however, in the interest of brevity Google does not repeat the evidence.

Name	Testimony
	<p>Andy Rubin is expected to testify that the reimplementation of the APIs of others was reasonable and customary in the industry.</p> <p><i>Prior testimony:</i></p> <p><b>Q.</b> And did you at some point form an opinion that this argument [that the Java SE APIs were copyrighted] was weak?</p> <p><b>A.</b> Around copyright?</p> <p><b>Q.</b> Yes.</p> <p><b>A.</b> Well, I didn't think -- I don't think that, in general, I don't care whose API's. I don't believe that API's are copyrightable.</p> <p><b>Q.</b> And where -- when did you form that judgment?</p> <p><b>A.</b> Yeah. Generally speaking, it's of my opinion and this, again, we're talking about my personal opinion as a computer scientist, that these API's and API's in general are documented. Sometimes books are written about API's. Sometimes there have been legal cases about whether API's are copyrightable and based on just industry knowledge, I didn't have a belief personally that API's were copyrightable.</p> <p>...</p> <p><b>Q.</b> So in making the decision to release a product that incorporates Apache Harmony code that implements Java.lang API's, were you relying on your belief that Java.lang API's were not copyrightable?</p> <p><b>A.</b> . . . [F]rom my personal knowledge, I don't believe that API's are copyrightable.</p> <p><b>Q.</b> And did you rely on that personal knowledge in making the development decision to release Android with Apache Harmony code that implemented Java.lang API's?</p> <p><b>A.</b> There were multiple things that I relied on. One of the things that I relied on was my belief that API's were not copyrightable.</p> <p><b>Q.</b> What is your basis for the your personal belief that API's are not copyrightable?</p> <p><b>A.</b> Industry stories and folklore of what I've heard about various legal cases around Nintendo and the fact that a lot of these things were documented in books that were in the public domain.</p> <p>Dep. at 151:4-155:19 (Nov. 17, 2011)</p>
<b>Thomas Kurian, Oracle's V.P., Software Development</b>	<p><i>Prior testimony:</i></p> <p>Mr. Kurian testified that he was aware that Apache had been reimplementing Java APIs in 2005 and that Andy Rubin told him that Google did not need a license for Android.</p> <p><b>Q.</b> Fair enough. And with respect to all three of those elements, Apache was using those as of, roughly, 2004, 2005?</p> <p><b>A.</b> Perhaps, yes.</p> <p><b>Q.</b> And in 2007, they were still using them with no license from Sun?</p> <p><b>A.</b> Yes. They had petitioned for a license. Sun had talked with them, but</p>

Name	Testimony
	<p>they had not been granted a license.</p> <p>Trial Tr. 399:24-400:5</p> <p><b>Q.</b> And Mr. Rubin told you Google didn't need a license to use Android, right?</p> <p><b>A.</b> Yes.</p> <p><b>Q.</b> He said, We don't need a license --</p> <p><b>A.</b> Yes.</p> <p>Trial Tr. 399:24-400:5 (Apr. 17, 2012)</p>
<p><b>Bob Lee, former Android Core Library Lead</b></p>	<p><i>Prior testimony:</i></p> <p><b>Q.</b> During the time you were at Google and working on the core libraries and looking at the Javadocs, did you have any conversations with anyone else at Google about making use of the Javadocs in connection with the creation of the core libraries?</p> <p><b>A.</b> Questions about like making use of the Java -- oh, of the original Sun Javadocs?</p> <p><b>Q.</b> Yes.</p> <p><b>A.</b> Yes, we definitely referred back to them so that we could make sure that we were maintaining -- not -- or maintaining interoperability with their implementations.</p> <p><b>Q.</b> Okay. Did you have any conversations with anyone at Google about whether it was appropriate for you to refer to the Javadocs?</p> <p><b>A.</b> I didn't know if this sort of thing was allowed, so I asked my director of engineering, Steve Horowitz, whether if you were allowed to reimplement other APIs like this.</p> <p><b>Q.</b> What was you conversation with Mr. Horowitz?</p> <p><b>A.</b> He said that, yes, there's lots of precedent for this; that you -- that's what we're talking about when you create a clean-room implementation. And he gave me some examples.</p> <p><b>Q.</b> And, again, Mr. Horowitz is an engineer?</p> <p><b>A.</b> He's a former engineer and now manager.</p> <p><b>Q.</b> Okay. And how did he relate to you in sort of the pecking order at Google? Was he</p> <p><b>A.</b> He was my manager.</p> <p>Trial Tr. 1201:12-1203:4 (Apr. 23, 2012)</p>
<p><b>Dan Bornstein, former Team Lead for Dalvik Virtual Machine and the Android Core Libraries.</b></p>	<p>Mr. Bornstein is expected to testify that when Google decided to rely on Harmony, that reliance was consistent with custom and practice in the industry regarding reimplementation of APIs, including the APIs for Java SE.</p>

**2. Documents:**

Document	Description
<b>TX200</b> 8/9/2005 Email from Patrick Reali to members of Android team	"If you want to have an open-source java platform, you should really consider Classpath, as the project has an enormous experience in the java libraries and regroups all the JVM developers that are done with the JVM implementation and are now improving the libraries (not to mention that getting the libraries and testsuite right is at least 10 times more work than the VM). They currently aim for J2SE but it would be great if you would help them to build a J2ME version of the classes. Classpath is licensed in GPL+Exception, which allows you to ship the libraries in a LGPL fashion. Classpath has also the advantage that you can use it almost right away (it is very portable) and then decide which pieces to optimize (let me guess: String....)."
<b>TX2765</b> 4/19/2007 "Noser Engineering AG Professional Services Agreement" (contract between Google and Noser Engineering AG)	The statement of work requires that Google will provide a "[d]etailed minimum list of packages, classes, and libraries" to be implemented, which shall be defined "in terms of GNU Classpath project, Apache Harmony, and other existing open source libraries. This is the 'specification.'" See page 10.  For the "Java library specification," the Statement of Work says that "Google is interested in compatibility with J2SE 1.5" and provides a list of libraries that must be supported, which includes the Java API packages to be implemented. See page 21.  This contract demonstrates that Google believed that reimplementing APIs from J2SE could be done without infringing third party IP rights (e.g., Sun's rights). The contract further shows that Google approved of Noser looking at GNU Classpath, Apache Harmony, or other existing open source libraries that implemented J2SE class libraries to determine what the declaring code should look like. See page 20.
<b>TX 2341</b> , 5/9/2007 article entitled "Sun Reveals A Slew of Moves at JavaOne" PHYSorg.com	Jonathan Schwartz, CEO at Sun, states "there is no reason that Apache cannot ship Harmony today ... We're very focused on the GPL community."

**B. DID ANYONE AT GOOGLE, IN MAKING THE DECISION TO RELY ON HARMONY, ACTUALLY REFER TO GNU CLASSPATH?**

The evidence shows that Google was aware of GNU Classpath and knew that its work was very similar to the work being done by Apache Harmony.

**1. Witnesses:**

Name	Testimony
<b>Andy Rubin, Android co-founder</b>	<i>Expected testimony</i> Andy Rubin is expected to testify that he relied on his knowledge of

	<p>industry custom, as informed by GNU Classpath.</p> <p><i>Prior testimony:</i></p> <p><b>Q.</b> Let's pause there a minute, Mr. Rubin. GNU Classpath. You passed by that pretty quickly. Who are they?</p> <p><b>A.</b> So, we mentioned Apache Harmony. They weren't the only effort trying to create a clean room implementation of the Java APIs. Actually, there were many efforts underway to do that and they were uncoordinated efforts. They were separate entities and separate people doing it. GNU Classpath was another example of someone doing what Apache Harmony was doing.</p> <p><b>Q.</b> And by that do you mean that GNU was also using the Java language APIs?</p> <p><b>A.</b> They were using the APIs to implement their own implementation of the functionality.</p> <p><b>Q.</b> So the APIs they were using were the same that Apache was using, correct?</p> <p><b>A.</b> Yeah. I can't say there was a complete overlap. I know that Apache was doing J2SE, which was the version for desktop computers. I'm not familiar with the exact target of the GNU Classpath, if it was identical or if they had a different target.</p> <p><b>Q.</b> But they were also open source?</p> <p><b>A.</b> Yes.</p> <p>Trial Tr. 1695: 2-25 (Apr. 25, 2012)</p>
<p><b>Andrew McFadden, former Google Lead Developer of Dalvik Virtual Machine</b></p>	<p><b>Q.</b> Did you get a set of Java class libraries to use with JamVM?</p> <p><b>A.</b> We initially used the GNU Classpath libraries. After a short period, maybe a week or two, we decided that wasn't going to work, threw them away, and started writing our own.</p> <p>Dep. Tr. 34:25-35:5 (May 4, 2011)</p> <p><b>Q.</b> What resources did you rely on to implement java.lang.ClassLoader?</p> <p><b>A.</b> There was an implementation used by JamVM based on the original GNU Classpath stuff that it worked with. So I was already familiar with the class from having worked on JamVM. In addition, I'm sure I would have looked at the -- the Javadoc documentation for the class.</p> <p>Dep. Tr. 90:22-91:4 (May 4, 2011).</p> <p><b>Q.</b> You had mentioned before that JamVM was designed to work with the GNU Classpath libraries. Is that right?</p> <p><b>A.</b> Yes.</p> <p><b>Q.</b> Would this java.lang.reflect.Array class be part of the GNU Classpath libraries?</p> <p><b>A.</b> The VM independent portion would have been part of GNU Classpath.</p> <p>Dep. Tr. 92:24-93:6 (May 4, 2011)</p>



**2. Documents:**

Document	Description
<b>12/28/2005 - 1/30/2006:</b> Multiple PERFORCE change logs for Android code relating to JamVM and email	The following entry from the Android code log shows that before Google made the decision to rely on the code from Harmony, Google referred to and used class libraries from the GNU Classpath project.  [android-team] New interim Java VM in //android/device". Some notes: "vmlibs-core will contain all the java.lang and associated stuff that we're currently building but are also using GNU classpath as an interim. If it collides w/ GNU classpath, it belongs in here"
<b>GOOGLE-01-00027540</b> 4/24/2007 Android code change log entry by Dan Bornstein.	"GNU Classpath version 0.95, for use as reference by us and our illustrious library developers."
<b>GOOGLE-02-00430545</b> 4/30/2007 Dan Bornstein Snippets regarding Android code	"Last Week ... * imported GNU Classpath 0.95 into //nih, for reference"
<b>GOOGLE-01-00026723</b> 5/2/2007 Change log entry 20271 by Adam Haberlach	"Add the classpath/harmony branch to Noser."

**C. TESTIMONY AND QUOTES SHOWING CUSTOM ESTABLISHED BY GNU CLASSPATH**

**1. Witnesses:**

Name	Testimony
<b>Dr. Joshua Bloch, Former Senior Staff Engineer, Distinguished Engineer at Sun/Oracle, former Chief Java Architect at Google</b>	<p><i>Expected testimony:</i></p> <p>Dr. Bloch is expected to testify that during his time as an employee at Sun (1996-2004), he and his colleagues were aware of the GNU Classpath open-source project to implement the Java SE class libraries and assisted in those efforts; that he corresponded with people involved with GNU Classpath regarding re-implementing the Java collections library that Dr. Bloch had written while at Sun and that the assistance he provided in response was known to his manager. Dr. Bloch is also expected to testify that, among other benefits, the feedback he received from the GNU Classpath provided Sun valuable insight regarding its documentation of APIs. In addition, Dr. Bloch is expected to address the general industry custom and practice of re-implementing APIs.</p> <p><i>Prior testimony</i></p> <p><b>Q</b> In addition to implementing existing Java APIs and then implementing outside APIs and bringing them into the Java libraries, were there also occasions when you were working at Sun when you</p>



Name	Testimony
	<p>worked with someone else who was creating a set of Java class libraries and implementing the existing APIs?</p> <p><b>A.</b> Yeah. So there was this project called Classpath. It was an Open Source project. And they were doing an early Open Source implementation of the JDK. And occasionally, after I had written the first version of the collections library that I referred to before, these folks from the outside would send an email saying, "Hey we're trying to reimplement your libraries, but we don't understand your specs...What should I do?"</p> <p><b>Q.</b> And do you recall, Dr. Bloch, did you speak with the folks from Classpath on more than one occasion as they were trying to reimplement the collections library?</p> <p><b>A.</b> I don't know if I spoke with them, but I certainly emailed back and forth, yes, several times.</p> <p><b>Q.</b> The fact that you were doing that, was that known to your supervisors at Sun?</p> <p><b>A.</b> Yes. David Bowen was my manager and he was aware.</p> <p>Trial Tr. 805:10-806:12 (Apr. 19, 2012)</p> <p><b>Q.</b> Just so we're clear and the jury understands, Dr. Bloch, java.util.regex, R-E-G-E-X, is an example of classes in the Java API that Sun got from someone else and reimplemented and put them in the Java package, is that right?</p> <p><b>A.</b> Yes. We got the API from somewhere else, but we did our own independent implementation. We did not copy the code.</p> <p>Trial Tr. 804:16-21 (Apr. 19, 2012)</p>
<b>Jonathan Schwartz, former Sun CEO</b>	<p><i>Prior testimony:</i></p> <p><b>Q.</b> Now, what is Apache Harmony? We have heard some testimony about Apache Harmony. What is Apache Harmony?</p> <p><b>A.</b> Apache Harmony is an equivalent to GNU Classpath, but it uses a separate license. So –</p> <p>Trial Tr. 1974:13-16 (Apr. 26, 2012).</p> <p><b>A</b> So Apache Harmony and GNU Classpath and Sun Java virtual machine all did the same thing, but only one could be called Java and that was the one that had, you know, been branded and blessed by our specification process to be called Java, and that was Sun's.</p> <p>Trial Tr. 1975:13-17 (Apr. 26, 2012)</p>
<b>Brian Swetland, Google Senior Staff Software Engineer</b>	<p><i>Prior Testimony:</i></p> <p><b>Q.</b> What other projects are you referring to?</p> <p><b>A.</b> Well, there's been a whole number of small Java VMs written by Google. The common, like, sort of computer science student project. But there's been a lot of small, medium, and large Java, you know, VM language implementations over the years. There's been some fairly high-profile ones, like the GNU Compiler project, GCJ, which is a GNU compiler for Java, that compiles the Java language to native code, like</p>

Name	Testimony
	<p>x86 PC. And the GNU Classpath project, which was a complete implementation of all of these standard Java APIs to enable that, as well as things like the Apache Harmony project, which was another open source, you know, project that provided a Java virtual machine and the standard libraries. None of these projects seemed to fall afoul of, you know, this concern that had been expressed about these APIs.</p> <p>Trial Tr. 965:16-966:6 (Apr. 20, 2012)</p> <p><b>Q.</b> With respect to GNU Classpath you testified that was a complete implementation of the specification?</p> <p><b>A.</b> That was my understanding.</p> <p>Trial Tr. 972:8-10 (Apr 20, 2012)</p>
<b>Dr. Astrachan, Professor of Computer Science at Duke University</b>	<p><i>Expected testimony:</i></p> <p>As set forth in his opening expert report on the fair use factors, Dr. Astrachan is expected to testify that “[r]e-implementation of APIs is a common practice across languages and platforms.” ¶ 272. Furthermore, that “besides the Sun/Oracle implementation of Java SE, there were various other implementations of Java SE in existence at or around the time Google developed and released Android,” including GNU Classpath (as well as Apache Harmony and OpenJDK). ¶ 275. In addition, Sun promoted the use of GNU Classpath at its annual JavaOne conference as early as 1999. ¶ 277. Finally, Dr. Astrachan provided numerous examples of conduct by Sun/Oracle that reflected the industry custom and practice of re-implementing APIs, including in spreadsheets, Linux implementations, and the Oracle Database Server. ¶¶ 281-307.</p>

## 2. Documents:

Document	Description
<p><b>ECF 1081 5/16/2012</b> Oracle’s Responses to Google’s Proposed Findings of Fact and Conclusion of Law, 5/6/2012</p>	<p><b>Undisputed Fact 37: Before Google began developing Android, the GNU project publicly distributed an independent implementation of Sun’s Java platform known as “Classpath.”</b></p> <p>Oracle response: Agree that the GNU Classpath project was an effort to create a version of the Java class libraries that are part of J2SE. The cited evidence does not establish that GNU Classpath was an independent implementation. Edward Screven testified that Classpath was “always incomplete” and was never used for any commercial implementations. Classpath was licensed under the GPL, a license that was considered by Google and others to be less suitable for commercial uses. [...] See page 17.</p> <p><b>Undisputed Fact 38. GNU Classpath used the Java programming language and implemented the specifications of the Java API packages at issue in this case, but GNU did not call its implementation Java.</b></p> <p>Oracle response: Agree that GNU Classpath used the Java programming language and used certain Java APIs, but the evidence cited by Google does not establish either that GNU Classpath used all of the 37 Java API packages at issue in this lawsuit or that GNU Classpath “did not call its</p>

Document	Description
	<p>implementation Java.” [...] <i>See</i> page 17.</p> <p><b>Undisputed Fact 39. Sun was aware of GNU Classpath.</b></p> <p>Oracle response: Agree. <i>See</i> page 18.</p> <p><b>Undisputed Fact 40. GNU never took a license from Sun for Classpath.</b></p> <p>Oracle response: Agree. Like everyone else who used Sun’s copyrighted API specifications, GNU’s use of the specifications was subject to the terms and conditions of the Specification License that Sun published in its books and on the internet. [...] <i>See</i> page 18.</p> <p><b>Undisputed Fact 41. Sun never publicly suggested that GNU had done anything wrong by developing and publicly distributing GNU Classpath, much less pursued legal action against GNU.</b></p> <p>Oracle response: Agree that Sun never publicly pursued legal action against GNU Classpath, but disagree that the cited evidence establishes that Sun never publicly suggested that GNU had done something wrong. [...] <i>See</i> page 18.</p>
<b>GOOGLE-80-00081369</b> 8/5/2005 Email from Sascha Brawer of Google to Google employees working on Android	“Everyone and their dog (not really, but way too many people) has been writing a JVM around GNU Classpath.” Brawer then lists several individuals and companies who have been using GNU Classpath, including Aicas, Kaffe, and Bytecode-to-Compiler.
<b>GOOGLE-13-00003576</b> 3/31/2006 Email from Cay Horstman Sun Distribution List: users@java-champions.dev.java.net (Custodian is Joshua Bloch) about Java on Linux:	“What is actually happening is a cause of pain for end users. Gnu Classpath can now support a number of mainstream Java applications (such as Eclipse and Azureus), and it is being packaged with some distros as the default “Java” (see e.g. <a href="http://www.fedoraproject.org/wiki/JavaFAQ">http://www.fedoraproject.org/wiki/JavaFAQ</a> ). Unfortunately, it is neither up-to-date nor reliable.”
<b>TX 7431, OAGOOGL00106 91023</b> 2008 presentation called “Better Living Through OpenJDK” at the O’Reilly Oscon Open Source Convention by Dalibor Topic, open source community leader.	<p>Slide called “GNU Classpath and Friends”: Slides notes that there are many free software virtual machines out there, and “Use the class library as the backbone for the Free Software world.” <i>See</i> page 6.</p> <p>Slide called “Common VM interface”: Slide says “Apply lessons learned from GNU Classpath to Open JDK” <i>See</i> page 20.</p>
<b>TX 7713, GOOG-00000510</b> 9/28/2005	“The latest releases of GCJ, GNU Classpath, Kaffe and various other free software projects have made it possible for the various GNU/Linux

Document	Description
“The GNU Classpath distro DevJam – Europe,” posting by Mark Wielaard, open source community leader	distributions to package non -trivial applications and libraries written in the Java programming language.”
<b>TX 7464, GOOG-10002486</b> Nov. 2004 Red Hat Summit presentation “GNU Classpath – Essential core classes for the java programming language”	Page 4 of the presentation contains a list of companies and projects using GNU Classpath, including AegisVM, IBM, Jaos, 4 Jupiter, kissme, JamVM, gcj, ikvm.net, Jnode, Kaffe, Sable.

**D. DID SUN KNOW OF THIS CUSTOM OR PRACTICE? GIVE SPECIFICS AND HOW IT WILL BE PROVEN**

**1. Witnesses:**

Name	Testimony
<b>Jonathan Schwartz, former Sun CEO (2004-2010)</b>	<p><i>Expected Testimony:</i></p> <p>Google expects Mr. Schwartz to testify that Sun was fully aware of GNU Classpath’s implementation of the APIs and that GNU Classpath’s use of the APIs was indicative of the general custom and practice of treating these APIs as free to use without a license.</p> <p><i>Previous testimony:</i></p> <p><b>Q.</b> In what way has or did Sun demonstrate its unwillingness to allow Java to fork?</p> <p><b>A.</b> We maintained throughout my time at Sun that if you wanted to call your product Java, you would pass the Testing Compatibility Kit, and you would get a commercialize license, which would enable you to call Java. Anybody else who wanted to go create their own runtime, whether it was Apache Harmony or GNU Classpath, was free to do so; they just couldn’t call it Java.</p> <p>Dep. Tr. 181:20-182:5.</p> <p><b>Q.</b> When you said -- oh, strike that. You said that that technology was available to others under the General Public License?</p> <p><b>A.</b> Yes.</p> <p><b>Q.</b> So distributors, OEMs, handset makers could use the GNU Classpath virtual machine to build and sell commercial phones?</p> <p><b>A.</b> Yes.</p> <p><b>Q.</b> And that source code was readily available to them for free?</p> <p><b>Q.</b> Yes</p>

1	Dep. Tr. 89:23-90:7 (July 20, 2011)
2	Q. What about GNU Classpath?
3	A. So GNU Classpath was an open source implementation of Java.
4	And so a developer and a group of developers decided to get together and
5	create an open source Java. They weren't calling it Java. It was GNU
6	Classpath. And so there was little we could do to stop them, and to a
7	certain extent it was actually good because they were bringing more
8	developers into Java. So was it -- GNU was using the Java
9	programming language, correct?
10	A. GNU.
11	Q. GNU.
12	A. The group of developers who were using the GNU license were using
13	the Java programming language.
14	Q. Did they eventually have a platform they called the Classpath?
15	A. They did.
16	Q. And did that use the Java programming language?
17	A. That absolutely used the Java programming language.
18	Q. I assume it used the Java APIs we were talking about?
19	A. It absolutely used the Java APIs.
20	Q. Sun was aware of it?
21	A. We were aware of it.
22	Q. Was anything done to stop Classpath from making their platform
23	available?
24	A. No
25	Trial Tr. 1972:8 - 1973:8 (Apr. 26, 2012)
26	Q. As CEO -- as CEO, Mr. Schwartz, were you satisfied that what GNU
27	was doing was fine?
28	A. It was the equivalent to me of what was happening in the Linux
	Community, which is an open source implementation that was in many
	ways a clone of a product we already had. So, yes, we thought -- there is
	nothing we could do to stop it. It didn't mean we were happy about it,
	but there was nothing we could do to stop it.
	Q. And I gather there was nothing you did do to stop it?
	A. Yes. There was nothing we did to stop it.
	Q. Did GNU ever have a license from Sun?
	A. I don't know who is GNU to take a license, but, no, GNU had no
	license. The developers responsible for Classpath had no license to Java.
	Trial Tr. 1973:24-1974:12 (Apr. 26, 2012)
26	<b>Simon Phipps, Sun/Oracle Chief Open Source Officer</b>
27	<i>Expected testimony:</i>
28	Google expects that Simon Phipps will testify that when he was Chief
	Open Source Officer at Sun in 2007, it was an industry custom or
	practice to use declarations/SSOs without a license; and that Sun's
	position was consistent with this industry custom as evidenced by the

	fact in his capacity as Open Source Officer, Sun's CEO authorized him to reach out to the open-source community, including GNU Classpath personnel (Dalibor Topic, Mark Weilaard) to assist with Sun's own implementation of the APIs in OpenJDK.
<b>Rick Cattell, former Sun Distinguished Engineer</b>	<i>Expected Testimony:</i> Dr. Cattell was employed at Sun between 1984 and 2007, was a Distinguished Engineer from 1988 through 2007, and joined Sun's JavaSoft division in 1995. Dr. Catell is expected to testify that re-implementing APIs is commonplace in the computing industry, and has long been consistent with custom and practice in the computing industry.

## 2. Documents:

Document	Description
November 2006 interview with James Gosling, VP and Sun Fellow at Sun <a href="http://www.oracle.com/us/technologies/java/gosling-os2-qa-136546.html">http://www.oracle.com/us/technologies/java/gosling-os2-qa-136546.html</a>	<b>Q.</b> How do you think this move [OpenJDK] will affect other open-source implementations of the Java programming language -- for example, Apache Harmony or GNU Classpath? <b>A.</b> It's hard to know. They'll certainly be able to mine our source for stuff to incorporate into their projects.
<b>GOOGLE-13-00049186:</b> 8/19/2006 Email from Roman Strobl (Sun) to users@java-champions.dev.java.net (custodian: Joshua Bloch of Google)	"Currently there are open source alternatives available (such as GCJ, GNU/Classpath and Harmony) and as they're approaching completion, you can almost say that forking of java is happening already today."
<b>TX 7620, OAGOOGL00046 39237</b> 6/7/07 Email from Jonathan Schwartz of Sun to Simon Phipps: message from Tom Marble of Sun	"Andrew Haley, Tom Fitzsimmons and the Classpath & Friends crew have proposed the experimental IcedTea project which is based upon OpenJDK, but replaces the binary plugs with Free Software alternatives from GNU/Classpath. In addition IcedTea can be bootstrapped from GCJ -- thus a complete Free Software solution. We have been working within Red Hat to replace these binary plugs with free software based on GNU Classpath and to remove the need for bootstrapping with unfree software. This is important for a number of reasons, the most pressing being that only free software may be used to build operating systems like Fedora."
<b>TX 7275</b> 11/13/2006 Video of Mr. Schwartz's remarks at JavaOne Conference	Excerpts from the video of the 2006 JavaOne Conference: "As we bring more people into the community on the left, even if they are not using Sun's technology and even if they are not paying Sun, as we bring more of them on line, that drives a greater opportunity for Sun. It also happens to drive a greater opportunity for others in the marketplace. There is a rising tide and it lifts all the boats that are floating on the ocean of opportunity."



Document	Description
<p><b>TX 7436</b> GOOG-00000281 11/13/2006 Q&amp;A from ZDnet with Tim Bray, Sun Director of Web Technologies</p>	<p><b>Q.</b> Will we see Sun be any more or less involved with Apache Harmony and/or GNU Classpath as a result of this?</p> <p><b>A.</b> That's up to them. Both projects have been doing good work and the whole Java community would benefit if we could bring that into the mainstream.</p> <p><b>Q.</b> Will Sun be taking up the GNU Classpath project offers to fill in the gaps on encumbered technology in the JDK?</p> <p><b>A.</b> In Open Source, code talks. Those gaps are going to need addressing and contributions of code to address them would be highly welcome. Having said that, my personal feeling is that the Classpath people have been doing great stuff and if they decided to focus on some of those problems, I'd be optimistic that they'd fill some of the gaps.</p>

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